

Summary of Illness/Injury Associated with Suspected Pesticide Exposure Reported by California Physicians¹ 1999

Type of Illness ²	Complete or Adequate Data ³											Incomplete Data	
	Occupational ⁴					Non-Occupational ⁴					All Unrelated		
	Def ⁵	Pro ⁵	Pos ⁵	Unl ⁵	Ind ⁵	Def ⁵	Pro ⁵	Pos ⁵	Unl ⁵	Ind ⁵			
Systemic	32	328	140	23	0	30	201	120	10	1	81	8	43
Eye	107	33	22	2	0	3	24	2	1	0	54	3	12
Skin	15	39	72	6	3	4	2	9	0	0	49	3	23
Eye/Skin	3	7	6	1	0	1	1	0	0	0	3	0	0
None/Not Determined	N/A ⁶	N/A ⁶	N/A ⁶	N/A ⁶	N/A ⁶	N/A ⁶	N/A ⁶	N/A ⁶	N/A ⁶	N/A ⁶	77	19	6
Subtotal	157	407	240	32	3	38	228	131	11	1	264	33	84
Total	839					409					264	117	

1. **Source:** California Department of Pesticide Regulation, Pesticide Illness Surveillance Program.

2. **Type of Illness:** Categorization of the type of symptoms experienced.

- Systemic : Any health effects not limited to the skin and/or eye. Cases involving multiple illness symptom types including systemic symptoms are included in the systemic category.
- Eye : Health effects involving only the eyes. This excludes outward physical signs (miosis and lacrimation) related to effects on internal bodily systems. These signs are classified under 'Systemic'.
- Skin : Health effects involving only the skin.
- Eye/Skin : Health effects involving only the eye and skin.
- None/ Not Determined : Either: (a) A relationship and/or illness type could not be determined from the information available, or (b) No illness/injury occurred. Cholinesterase depression without symptoms falls in this category.

3. **Data Quality:** Evaluation of the completeness of the provided information

- Complete : All of the information is included in the investigation: all medical evidence, physical evidence and a complete description of the incident. This description should include an adequate work history, adequate application history (when appropriate), interviews of all significant people, etc.
- Adequate : Sufficient information is available to make an informed judgment on the relationship between pesticide exposure and the reported symptomatology (i.e., symptomatology and pesticide exposure information are available).
- Insufficient : The available information is inadequate to make an informed judgment on the relationship between pesticide exposure and the reported symptomatology. For submitted investigations, the investigator failed to make an adequate attempt to obtain the necessary information.
- Unavailable : The available information is inadequate to make an informed judgment on the relationship between pesticide exposure and the reported symptomatology. For submitted investigations, the investigator made an adequate attempt to collect the necessary information, but was not able to do so (e.g., none of the parties concerned could be contacted). There usually needs to be more effort than to say the employee is not available for interview; other parties can often supply useful information.

4. **Occupational/Non-Occupational:** The relationship between the illness/injury and the individual's work.

- Occupational : Work related. The individual was on the job at the time of the incident. This includes both paid employees and volunteers working in similar capacity to paid employees.
- Non-Occupational : Not work related. The individual was not on the job at the time of the incident. This category includes individuals while on the way to or from work (before the start or after the end of their workday).

5. **Relationship:** Degree of correlation between pesticide exposure and resulting symptomatology.

- DEFinite : High degree of correlation between pattern of exposure and resulting symptomatology. Requires both medical evidence (such as measured cholinesterase inhibition, positive allergy tests, characteristic signs observed by medical professional) and physical evidence of exposure (environmental and/or biological samples, exposure history) to support the conclusions.
- PRObable : Relatively high degree of correlation exists between the pattern of exposure and the resulting symptomatology. Either medical or physical evidence is inconclusive or unavailable.
- POSsible : Some degree of correlation evident. Medical and physical evidence are inconclusive or unavailable.
- UNLikely : A correlation cannot be ruled out absolutely. Medical and/or physical evidence suggest a cause other than pesticide exposure.
- INDirect : Pesticide exposure is not responsible, but pesticide regulations or product label contributed in some way, (e.g. heat stress while wearing chemical resistant clothing).
- Unrelated : Either: (a) Definite evidence of cause other than pesticide exposure including exposures to chemicals other than pesticides, or (b) No illness/injury occurred. Cholinesterase depression without symptoms falls in this category.

6. **N/A:** Not Applicable.

Whom to Contact:

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About the Pesticide Illness Surveillance Program Data

Pesticide-related illnesses have been tracked within the state of California for nearly 50 years. The California Environmental Protection Agency, Department of Pesticide Regulation (DPR) maintains a surveillance program which records human health effects of pesticide exposure. The Pesticide Illness Surveillance Program (PISP) documents information on adverse effects from pesticide products, whether elicited by the active ingredients, inert ingredients, impurities, or breakdown products. This program maintains a database, which is utilized for evaluating the circumstances of pesticide exposures resulting in illness. This database is consulted regularly by staff who evaluate(s) the effectiveness of the DPR pesticide safety programs and recommend changes when appropriate.